



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/064,471

07/17/2002

Jeffrey Rahn

107153

7900

27074

7590

07/06/2005

OLIFF & BERRIDGE, PLC.

P.O. BOX 19928

ALEXANDRIA, VA 22320

EXAMINER

HO, ALLEN C

ART UNIT

PAPER NUMBER

2882

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

62

Office Action Summary	Application No.		Applicant(s)	
	10/064,471		RAHN, JEFFREY	
	Examiner		Art Unit	
	Allen C. Ho		2882	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 4-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 and 18 recite "a first capacitor that stores the electronic signal provided by the sensor" and "a second capacitor that stores the electronic signal provided by the sensor", which is interpreted to mean that the electronic signal is stored in the first capacitor and the second capacitor simultaneously. This is in contradiction with the recitation of a controller that selectively stores the entirety of the electronic signal in either the first capacitor or the second capacitor. The examiner suggests replacing these recitations with "a first capacitor that is selectively connected to the sensor" and "a second capacitor that is selectively connected to the sensor".

Claim Objections

3. Claim 12 is objected to because of the following informalities: Claim 12 recites the limitation "the first capacitor" and "the second capacitor". There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Art Unit: 2882

4. Claim 18 is objected to because of the following informalities: line 13, --entirety of the-- should be inserted before "electronic". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-3 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merrill *et al.* (U. S. Patent No. 6,606,120 B1).

With regard to claim 1, Merrill *et al.* disclosed an imaging system (Fig. 15), comprising: an input device that includes a pixel device (32) which further includes a sensor (100-5) that provides an electronic signal that represents an image, at least one transistor (112-1, 112-4) connected to the sensor; a first capacitor (110-1); a second capacitor (110-4); and a controller that selectively (XFR1, XFR 2) stores the entirety of the electronic signal provided by the sensor in either the first capacitor or the second capacitor.

However, Merrill *et al.* failed to teach that the imaging system further comprises a two-dimensional array of pixels, and the electronic signal representing an image is provided to the two-dimensional array of pixels.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an output device (*e. g.*, a display) that comprises a two-

Art Unit: 2882

dimensional array of pixels, since a person would be motivated to view the image detected by the imaging system.

With regard to claim 2, Merrill *et al.* disclosed the imaging system according to claim 1, the pixel device further comprising: a plurality of transistors (112-1, 112-4) and at least two control signals, one (XFR1) of the at least two control signals controlling one of the plurality of transistors so that the electronic signal is stored in the first capacitor, and the other one (XFR2) of the at least two control signals controlling another one of the plurality of transistors so that the electronic signal is stored in the second capacitor.

With regard to claim 3, Merrill *et al.* disclosed the imaging system of claim 2, wherein the first capacitor is independently active for greater than 10 microseconds. This claim fails to set forth additional structural limitation. Accordingly, it is rejected with claim 2.

With regard to claim 18, Merrill *et al.* disclosed an imaging system, comprising: an input device that includes a pixel device (32) which further includes a sensor (100-5) that provides an electronic signal that represents an image, at least one transistor (112-1, 112-4) connected to the sensor; a first capacitor (110-1); a second capacitor (110-4); and a controller that selectively (XFR1, XFR 2) stores the entirety of the electronic signal that represents the image in either the first capacitor or stores the entirety of the electronic signal that represents the image in the second capacitor.

However, Merrill *et al.* failed to teach that the imaging system further comprises a two-dimensional array of pixels, and the electronic signal representing an image is provided to the two-dimensional array of pixels.

Art Unit: 2882

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an output device (*e. g.*, a display) that comprises a two-dimensional array of pixels, since a person would be motivated to view the image detected by the imaging system.

Response to Arguments

7. Applicant's arguments, see p. 9, line 10 - p. 10, line 6, filed 26 April 2005, with respect to the rejection(s) of claim(s) 1-3 and 18 under 35 U.S.C. 103(a) as being unpatentable over Fossum *et al.* (U. S. Patent No. 5,841,126) and Böhm *et al.* (U. S. Patent No. 6,518,558 B1) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Merrill *et al.* (U. S. Patent No. 6,606,120 B1).

The examiner agrees with the applicant that Fossum *et al.* and Böhm *et al.* failed to disclose a controller that selectively stores the entirety of the electronic signal provided by the sensor in either the first capacitor or the second capacitor.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Brickell *et al.* (U. S. Pub. No. 2003/0015645 A1) disclosed a sensor comprising two capacitors.

Art Unit: 2882

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen C. Ho whose telephone number is (571) 272-2491. The examiner can normally be reached on Monday - Friday from 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward J. Glick can be reached at (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2882

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Allen C. Ho
Primary Examiner
Art Unit 2882

29 June 2005